CMI Metaphase Interface

CCS
Catia Communication Service

Installation & Administration Guide

T-Systems

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Manual History

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Preface

About this Guide

This guide provides installation and configuration information for the CMI-Communication-Server CCS. Before using this guide, be sure you understand:

the UNIX-based operating system

the administration of the CATIA system

the administration of Teamcenter Enterprise system

the administration of CMI system

Related Documents

The following manuals contain information about installation, usage and customizing of CATIA Metaphase Interface:

Manual Title	Release
CATIA Metaphase Interface Installation & Administration Guide	
CATIA Metaphase Interface User's Manual	
CATIA Metaphase Interface Customizing Guide	

Your Comments are Welcome

Your comments on our publications are welcome. Please write us at:

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Table of Contents

CHAPTER 1

Overview

System and Software Requirements

Please see *CMI Installation and Administration Guide*

Shipment

The software will be delivered on a CD-ROM in ISO-9660 format containing the following parts (depending on desired operating system architecture):

Teamcenter servers	<ccs>

Documentation

The documentation consists of one part:

Manual Title	Release
CCS Installation & Administration Guide	-

The documentation will also be delivered as printed (one example per each part). They can be used as copy master.

Loading the Software from CD-ROM

The CMI product family software is distributed on a ISO-9660 formatted CD-ROM (“High Sierra”, hsfs, cdfs). Magnetic tape distribution is optionally available. The following steps describe how to mount the software CD-ROM.

Log in as root user to a host with a CD-ROM drive. If your host does not have a CD-ROM drive, log into another host that is NFS-accessible to the installation host.

(If necessary) Create a mount-point directory for the CD-ROM:

```
# mkdir /cdrom
```

Place the CCS CD-ROM in the drive. On Solaris and SGI hosts, the volume manager mounts the CD-ROM automatically, so you can skip the next step.

Mount the CD-ROM:
Note: CD-ROM device names vary from host to host. Thus, you may need to adjust the mount command listed below.

Architecture	Mnemonic	Mount Command
Solaris	solaris2	not necessary
HP-UX	hpux	**mount –F cdfs –r/dev/dsk/c3d0s2 /cdrom**
IRIX 6	mips	not necessary
AIX 5	aix	**mount –o ro –v cdrfs /dev/cd0 /cdrom**

If the CD-ROM drive is not on the installation host, use NFS facilities to export the CD-ROM drive's mount point from its host, and mount it on the installation host. For example:

On the host with the CD-ROM drive:

```
# exportfs –i –o ro /cdrom
```

On the installation host:

```
# mount drive-host:/cdrom /cdrom
```

CHAPTER 2

Adapting TeamCenter Enterprise

Your existing Teamcenter Enterprise environment has to be extended to install the CCS-Server. The new server has to be integrated into the existing environment (default **$MTI_ROOT).** Any existing CMI installation should have been adapted to the appropriate Release.

Introduction

CCS – CMI communication service – is a solution to optimize communication between CMI and CATIA. For performance reasons, GMI and CMI servers should be installed on a corporate host. Often it is not possible to communicate to CATIA because of firewalls. This can be addressed by installing the optional CMI extension *CCS.* Install CCS

1. on the corporate server host together with GMI and CMI
2. in each remote Workgroup where CATIA is used. In the Workgroups GMI and CMI is not needed.

On a site where CCS is installed, all proprietary communication will be between CATIA and CCS. Between CCS and CMI – over the firewall - only MUX is used for communication.

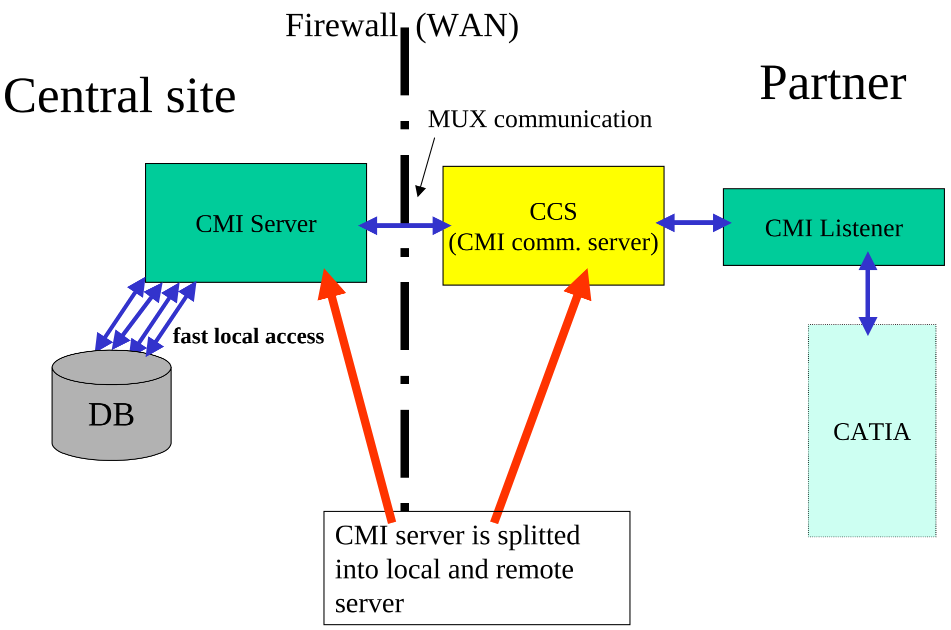


Figure 1: CCS Architecture, IP communication

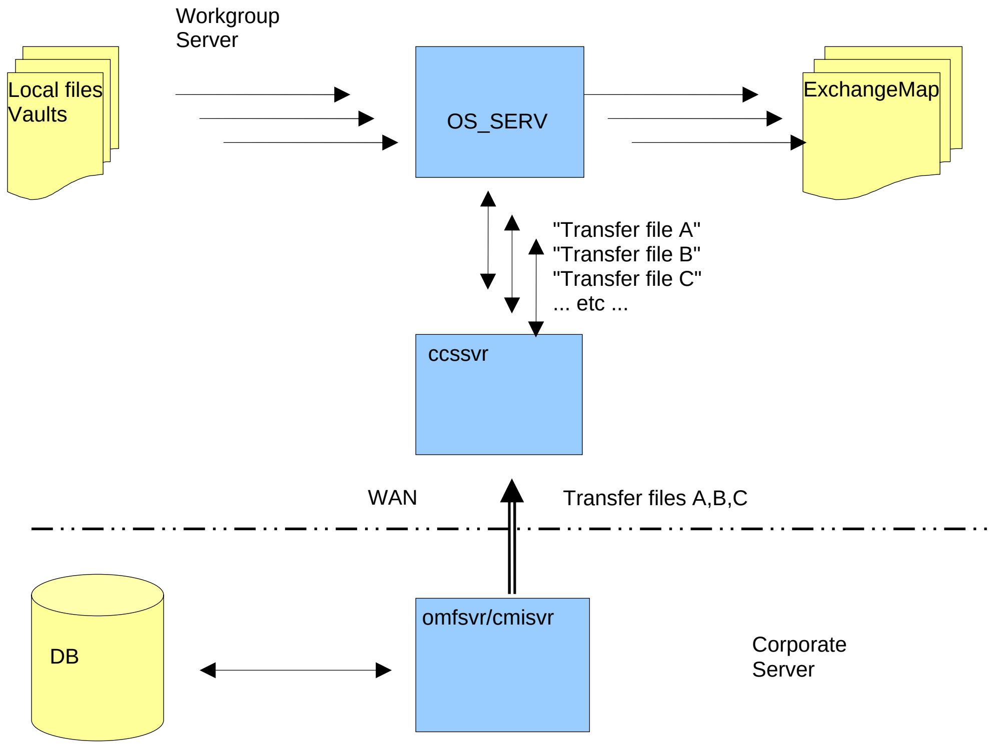


Figure 2: CCS Architecture, File transfer

Server Installation

CCS is an extension for CMI that is meant to be installed in Workgroups. Therefore the GMI- and CMI-server should be installed on a corporate server. The installation is processed in the same way as with other Teamcenter Enterprise servers (by help of the installation script **insmenu**). For more information please refer to the „*Installation Guide for UNIX and Windows NT*“ of Teamcenter Enterprise. Now the installation of this two servers will be described.

CCS Installation

The following steps describe how to install the CCS server.

Mount CD-ROM. See chapter “*Loading the Software from CD-ROM*” on page 7.

Log in as the Teamcenter Enterprise administrator (i.e. **`pdmadmin`**):

```
# su – pdmadmin
```

Change to your installation directory:

```
# cd $MTI_ROOT/install
```

Choose your desired operating system mnemonic (Please refer to the mnemonics in chapter “*Loading the Software from CD-ROM*” on page 7).

The mnemonic “nt_os” will be chosen as an example for the following steps.

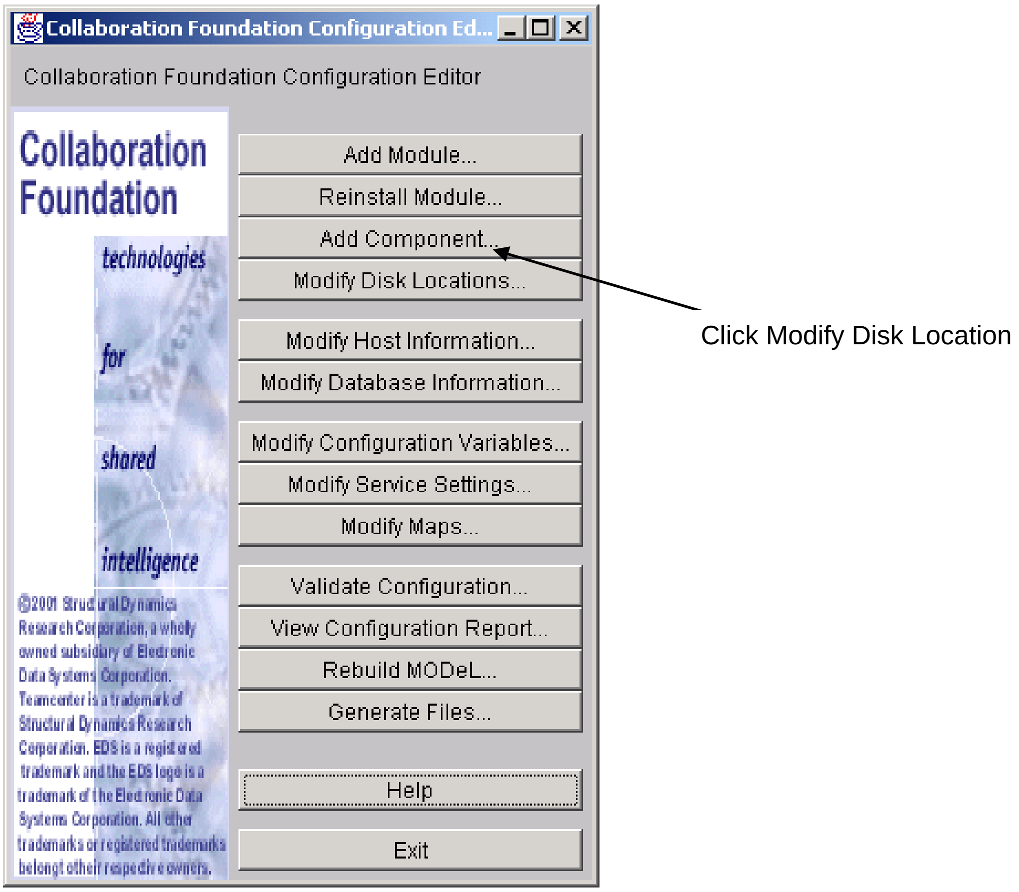
Copy the server information files from the CD-ROM CCS directories to your installation location:

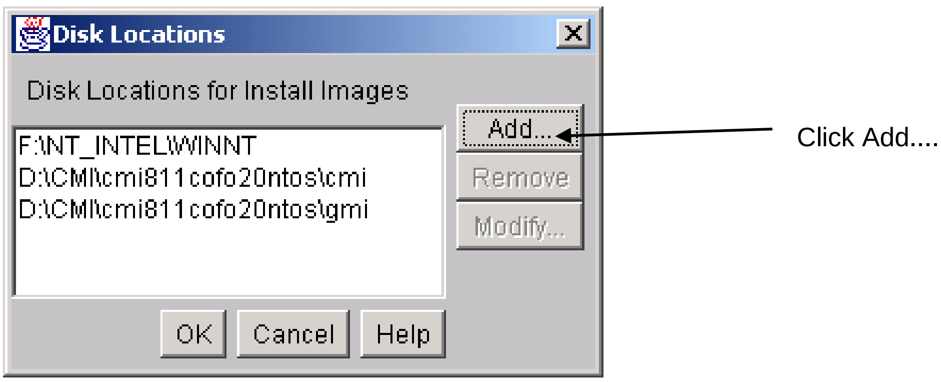
“tocccs.dat”

“cfgccs.dat”

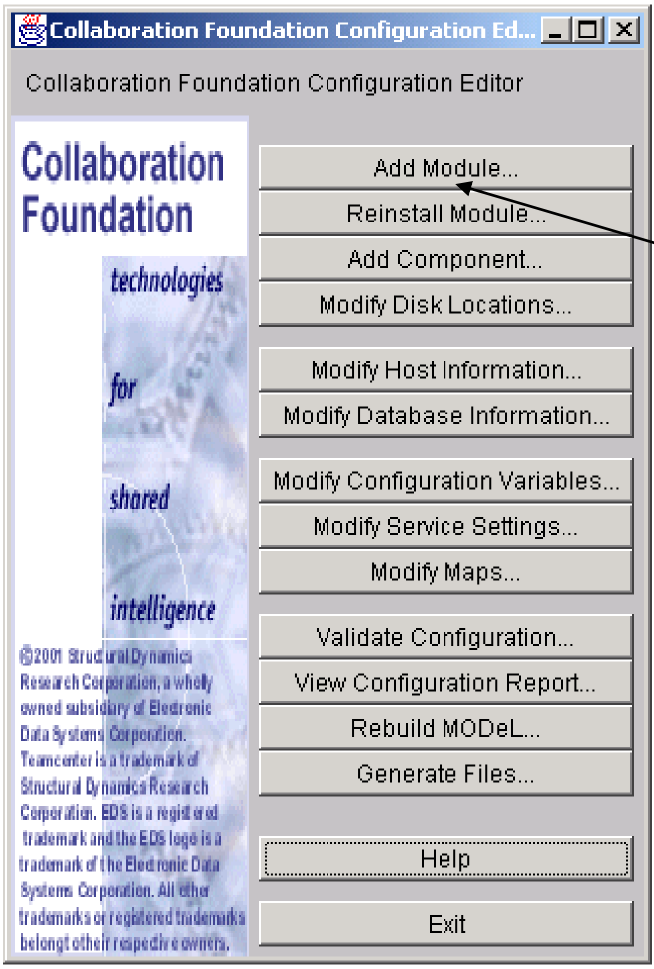
The Teamcenter Enterprise License Manager is running

Then source pdmsetup in $MTI_ROOT\config and start cfgedit or cfgedit2 in $MTI_ROOT\install









Click Add Module….

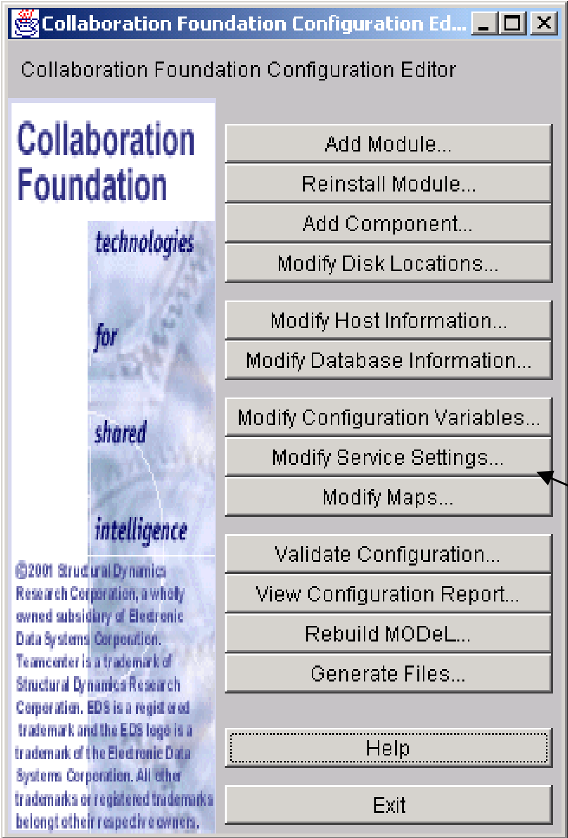
Select CCS

Confirm with OK

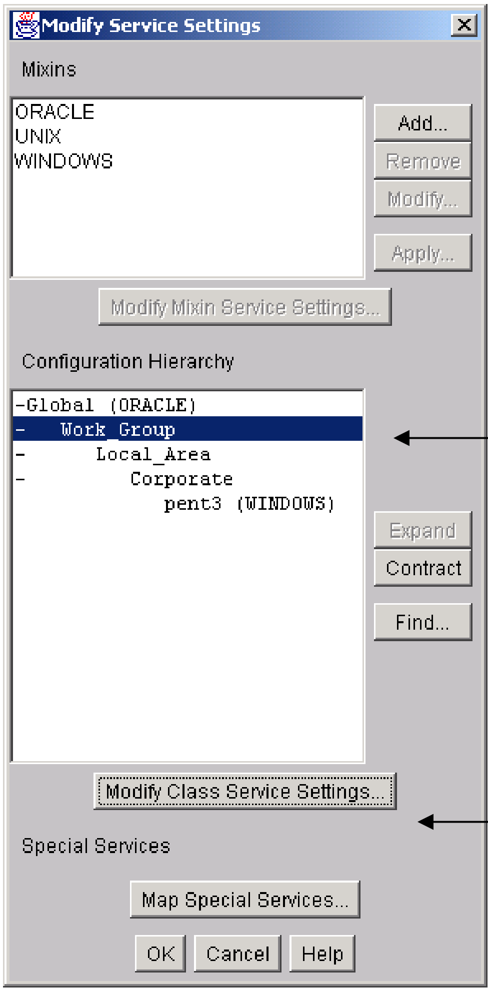
Modifications in configuration file

The following steps will be done by the installation script. The parameters of the CCS server should be modified manually.

The CCS server is registered in the file **`$PDM_CONFIG (config.cfg)`** , which indicates the computer where they have been installed.
Please select the “Modify Service Settings” on the dialog window.

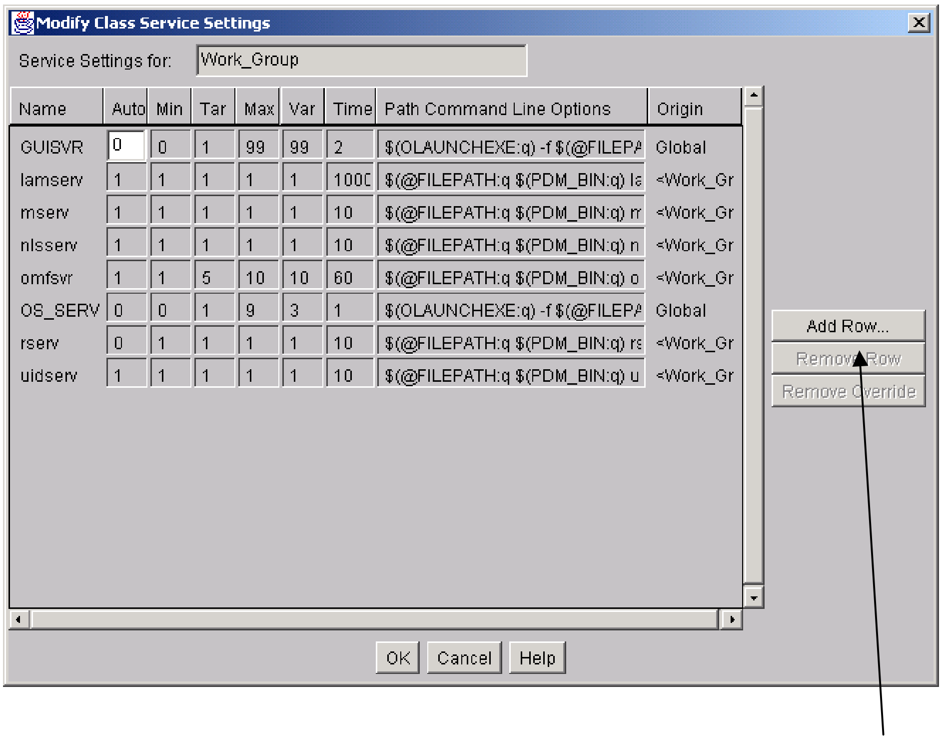


Select Modify Service Setting..



Select Work_Group

Click Class Service Settings...



Click Add Row...

Add the Servise Settings for the CCS-server similar to the CMI-server and Confirm with “Ok”.

The following configuration will be added automatically by the installation script:

```
insert service.cfg host = {hosts_ccs}
  ccssvr "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) ccsserv) -C 250"
  ;
```

Requested libraries

The CCS-Server needs the libscmi- and libsgmi-Library.

CCS Server within DUS

It is not recommended to run the CCS server in a DUS server (Dynamic Unified Server) because the CCS server must be addressed independent of CMI and GMI at the Catia-Client. CMI and GMI themselves should be run in DUS configuration.

Configure Catia-clients for CCS

It is possible to configure the Catia clients to run with CCS or not. The configuration variable CMI_USE_CCS must be set to “True” or “False”. That means that you can run all clients of the corporate server without CCS and only the Catia clients of a distinct workgroup-server run with CCS.

Example:

set CMI_USE_CCS host={"edmg76"} "False";

set CMI_USE_CCS host={"edmg82"} "True";

Example of a configuration file

The following file is an example of a configuration file with the corporate server lsd and the two Catia-Clients “lfaixv02” and “wguh”. CMI and GMI are running on the corporate server and the CCS server is running at the Catia client.

```
#@ CfgVersion "400"

#@ DBVendor "ora"

#@ Distributed true

#@ contextDef "cfa" "/tcenter/cf/evista" "/tcenter/cf/docs"  DiskLocs
"/cdrom/HPUX"

define GUI_ENVS

        ND_HOME +

        ND_PATH +

        ND_NATIVEMENU +

        ND_USESYSCOLORS ;


define APP_ENVS

        METATOK +

        ND_PATH +

        MTIPATH ;


domain host = "$(@HOST)";

domain systype = "$(@OSTYPE)";


set "OPERATE" "sucfa";

set "DDB" host={"served_by_lsd"} "sucfa";

set "CUDBNAME" "sucfa";


define "hosts_mloader"

        "lsd"

        ;


define "hosts_svr"

        "$(VC_HOSTNAME)"
```

```
        ;
set "serverhost" "$(VC_HOSTNAME)" ;
#set "PDM_CONFIG_EPILOG" "$(@FILEPATH $(MTI_ROOT:q) config site.cfg)" ;
#########################################
#@ classDef "Global" mixinDef "ORACLE"
define "cls_Global"
        "cls_Work_Group"
        ;

#$ Set Spooling of events on. Default is off.
set "SPOOLNOTIFS" "TRUE" ;

set "DOCS_RELATIVE_DIR" "/cfadocs" ;
set "PDM_BIN" "$(@DIRPATH $(MTI_ROOT:q) bin)" ;
set "METAPATH" "$(@DIRPATH $(MTI_ROOT:q) meta) $(@FILEPATH $(MTI_ROOT:q) meta -
)" ;
set "NLS_PATH" "$(@DIRPATH $(MTI_ROOT:q) nls)" ;

#$ Define rule cache file directory.
set "RULEFILE" "$(@DIRPATH $(MTI_ROOT:q) rscache)" ;
set "MIGRATE" "mti.mgr" ;
set "METATOK" "tmti.prd" ;
set "BROWSER_FONT" "medium" ;
set "MVIHELPDIR" "$(@DIRPATH $(MTI_ROOT:q) html)" ;
set "DIALOG_FONT" "medium_bold" ;
set "ICONPATH" "$(@DIRPATH $(MTI_ROOT:q) icon default)" ;
set "OBJECT_PAGE_SIZE" "25" ;
set "TOKBUFLIMIT" "400000" ;

#$ Set the max num of objs returned from a query.
set "PDM_MAX_QUERY_OBJS" "5000" ;
set "MAXCOMPONENTS" "1000" ;
set "MIGRATETOK" "tmti.mgr" ;
set "VC_MUX_IPPORT" "65000" ;
set "LONG_MENUS" "1" ;
set "OBJECT_PAGE_LIMIT" "200" ;
set "VMPATH" "$(@DIRPATH $(MTI_ROOT:q) vm) $(@DIRPATH $(MTI_ROOT:q) install)" ;
set "META" "mti.prd" ;
set "BROWSER_WINDOW_BG" "255 255 255" ;

set "ND_PATH" "$(@DIRPATH $(ND_HOME:q) resource)" ;
set "OLAUNCHEXE" "$(@FILEPATH $(PDM_BIN:q) olaunch)" ;
set "CGIBIN_RELATIVE_DIR" "/cfacgi" ;
set "MAIL_LOG" "LOG_ERRORS" ;
set "ND_CHARNATIVE" "ct_ascii" ;

#$ '1' turns on message validation.
set "VAL_NONTRUSTED_MSG" "0" ;
```

```
set "MTIPATH" "$(MTI_ROOT) $(METAPATH) $(@DIRPATH $(MTI_ROOT:q) config)" ;
set "ND_HOME" "$(MTI_ROOT)" ;
set "MSQL_MAXBUF" "64" ;
set "RELEXP_NUM_OBIDS" "100" ;

insert "service.cfg"
   "OS_SERV" "0 0 1 9 3 1 $(OLAUNCHEXE:q) -f $(@FILEPATH:q $(PDM_BIN:q) osserv)"
   "GUISVR" "0 0 1 99 99 2 $(OLAUNCHEXE:q) -f $(@FILEPATH:q $(PDM_BIN:q) omf) -
a"
;
#@ auxEnd
#########################################
#@ classDef "Work_Group" extends "Global"
define "cls_Work_Group"
       "cls_Local_Area"
       ;

set "WebTimer" host={"cls_Work_Group"} "600" ;
set "DEFAULT_USER_REGISTRY" host={"cls_Work_Group"} "registry" ;
set "WebCacheSize" host={"cls_Work_Group"} "1024" ;
set "WebHTMLPassThru" host={"cls_Work_Group"} "FALSE" ;
set "WebFileTransferRule" host={"cls_Work_Group"} "MakeCopyObject" ;

insert "service.cfg" host={"cls_Work_Group"}
   "lamserv" "1 1 1 1 1 1000 $(@FILEPATH:q $(PDM_BIN:q) lamserv)"
   "mserv" "1 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) mserv)"
   "uidserv" "1 1 1 1 1 10  $(@FILEPATH:q $(PDM_BIN:q) uidserv)"
   "rserv" "0 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) rserv)"
   "nlsserv" "1 1 1 1 1 10  $(@FILEPATH:q $(PDM_BIN:q) nlsserv)"
   "omfsvr" "1 1 5 10 10 60 $(@FILEPATH:q $(PDM_BIN:q) objserv) -C 250 -t -d4"
   "wwwsvr" "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) wwwserv) -C 250"
   "cmisvr" "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) cmiserv) -C 250 -t -d4"
   "gmisvr" "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) gmiserv) -C 250 -t -d4"
   "ccssvr" "0 1 1 10 10 5 $(@FILEPATH:q $(MTI_ROOT:q) bin ccsserv) -C 250 -t -
d4"
;

insert "service.cfg" host={"lfaixv02"}
   "ccssvr" "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) ccsserv) -C 250 -t -d4"
   "lamserv" "1 1 1 1 1 1000 $(@FILEPATH:q $(PDM_BIN:q) lamserv)"
;

insert "service.cfg" host={"wguh"}
   "ccssvr" "0 1 1 10 10 5 $(@FILEPATH:q $(PDM_BIN:q) ccsserv) -C 250 -t -d4"
   "lamserv" "1 1 1 1 1 1000 $(@FILEPATH:q $(PDM_BIN:q) lamserv)"
;
#@ auxEnd
#########################################
```

```
#@ classDef "Local_Area" extends "Work_Group"
define "cls_Local_Area"
        "cls_Corporate"
        ;
insert "service.cfg" host={"cls_Local_Area"}
   "notifserv" "0 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) notif) -C 250"
   "mloader" "1 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) mloader)"
   "postserv" "1 1 1 3 3 10 $(@FILEPATH:q $(PDM_BIN:q) post) -h "
   "advancerserv" "1 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) advancer) -C 250"
;
#@ auxEnd
#########################################
#@ classDef "Corporate" extends "Local_Area"
define "cls_Corporate"
        "lsd"
        ;
insert "service.cfg" host={"cls_Corporate"}
   "scheduleserv" "0 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) schedule)"
   "registry" "0 1 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) rgyserv)"
   "repserv" "0 0 0 0 0 10 $(@FILEPATH:q $(PDM_BIN:q) replic8r)"
   "expireserv" "0 0 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) expire)"
;
#@ auxEnd

#########################################
#@ classDef "Workstation" extends "Global"
#@ auxEnd

#########################################
#@ mixinDef "ORACLE"
define "mix_ORACLE"
        "cls_Global"
        ;

set "BIN_SIZE" host={"mix_ORACLE"} "4096" ;
set "DOBINJOIN" host={"mix_ORACLE"} "off" ;
set "KeyValueLen" host={"mix_ORACLE"} "255" ;
set "DB_VENDOR" host={"mix_ORACLE"} "ORA" ;
set "MSQL_CURSOR_NUM" host={"mix_ORACLE"} "16" ;
set "MSQL_DOT_NOTATION" host={"mix_ORACLE"} "0" ;
set "DB_MAX_VARCHAR_SIZE" host={"mix_ORACLE"} "2000" ;
set "DB_MAX_INDEX_SIZE" host={"mix_ORACLE"} "749" ;
set "DB_INDEX_BYTES_PER_FIELD" host={"mix_ORACLE"} "1" ;
set "MSQL_CURSOR_STAT" host={"mix_ORACLE"} "0" ;
set "MaxVarSize" host={"mix_ORACLE"} "256" ;

set "PathComponentLength" host={"mix_ORACLE"} "256" ;
```

```
#@ auxEnd

#########################################
#@ mixinDef "UNIX"
define "mix_UNIX"
       "lsd"
       ;

set "FT_CGI" host={"mix_UNIX"} "ftcgi" ;

#$ set the default web browsers for manuals/online
set "WEB_TOOL_LOC" host={"mix_UNIX"} "netscape" ;

#$ Set the meta server on. Not set = not running
set "METACACHE" host={"mix_UNIX"} "$(HOME)/.ctmti" ;

set "HELP_CGI" host={"mix_UNIX"} "whlp" ;

set "VC_MUX_SOCK" host={"mix_UNIX"} "$(@FILEPATH $(MTI_ROOT:q) sock.mux)" ;
set "ND_USESYSCOLORS" host={"mix_UNIX"} "FALSE" ;
set "X_PASTE_STYLE" host={"mix_UNIX"} "1" ;

set "EDITOR" host={"mix_UNIX"} "vi" ;
set "VC_MUX_FIFO" host={"mix_UNIX"} "$(@FILEPATH $(MTI_ROOT:q) fifo.mux)" ;
set "VIEWER" host={"mix_UNIX"} "view" ;
set "GEN_CGI" host={"mix_UNIX"} "genhtml" ;
#@ auxEnd

#########################################
#@ mixinDef "WINDOWS"

set "FT_CGI" host={"mix_WINDOWS"} "ftcgi.exe" ;

#$ Set the meta server on. Not set = not running
set "METACACHE" host={"mix_WINDOWS"} "$(HOMEDRIVE)$(HOMEPATH)\\ctmti" ;
set "ND_NATIVEMENU" host={"mix_WINDOWS"} "FALSE" ;

#$ Set the max num of objs returned from a query.
set "PDM_MAX_QUERY_OBJS" host={"mix_WINDOWS"} "1000" ;
set "HELP_CGI" host={"mix_WINDOWS"} "whlp.exe" ;
set "VC_MUX_NBIOS_PREFIX" host={"mix_WINDOWS"} "mux_" ;

set "VC_MUX_LISTENWINDOW" host={"mix_WINDOWS"}
"muxLocalXprtListenWindow$(VC_MUX_IPPORT)" ;

set "EDITOR" host={"mix_WINDOWS"} "notepad.exe" ;
set "VIEWER" host={"mix_WINDOWS"} "notepad.exe" ;
set "GEN_CGI" host={"mix_WINDOWS"} "genhtml.exe" ;
```

```
set "VC_MUX_NBIOS_NAME" host={"mix_WINDOWS"} "host" ;
#@ auxEnd

########################################
#@ hostDef "lsd" "HPUX" "tcp" Corporate "root" FullCfgFile true extends
"Corporate" mixinDef "UNIX"

set "PWF" host={"lsd"} "$(@FILEPATH $(MTI_ROOT:q) config sucfa.pwf)" ;
set "PWF_sucfa" host={"lsd"} "$(@FILEPATH $(MTI_ROOT:q) config sucfa.pwf)" ;

insert "service.cfg" host={"lsd"}
   "mgrsvr" "0 0 1 1 1 10 $(@FILEPATH:q $(PDM_BIN:q) mgrora)"
   "msqlsucfa" "1 1 6 6 6 2 $(@FILEPATH:q $(PDM_BIN:q) msqlora) -sn $(PWF_sucfa)
-C 5000"
;
#@ auxEnd
#@ view "Local" TCP
define "view_Local"
       "lsd" ;

set LanName host = {"view_Local"} "Local";
#@ auxEnd

## Host Map (host names are case sensitive when evaluated by cfg subystem)
insert hosts
     "lsd"            "tcp lsd"
     "lfaixv02"               "tcp lfaixv02"
     "wguh"           "tcp wguh"
;
## Database Server Meta-Data
#@ dbServerDef "CFA" true sysUsrPwd "system" "HU](*9;"

#@ repsetDef "AdminRS" true false "Process" "a0tmpl" "Admin" "GenBrch" "GenStep"
"ClsSbscr"
set "PROCESS" host={"served_by_lsd"} "admcfa";
set "A0TMPL" host={"served_by_lsd"} "admcfa";
set "ADMIN" host={"served_by_lsd"} "admcfa";
set "GENBRCH" host={"served_by_lsd"} "admcfa";
set "GENSTEP" host={"served_by_lsd"} "admcfa";
set "CLSSBSCR" host={"served_by_lsd"} "admcfa";
#@ auxEnd

#@ repsetDef "KeyTblRS" false false
#@ auxEnd

#@ repsetDef "KeyInfoRS" true false "KeyInfo"
set "KEYINFO" host={"served_by_lsd"} "keycfa";
#@ auxEnd
```

```
## Database Type Meta-Data
#@ dbtypeDef "SU"
#@ dbtypeDef "Admin" "AdminRS"
#@ dbtypeDef "Key" "KeyInfoRS"
#@ dbtypeDef "Ops"
#@ dbtypeDef "User"
## Services Map
define "served_by_lsd"
       "lsd"
        "lfaixv02"
       "wguh"
;
insert services host = {"served_by_lsd"}
       advancerserv   "lsd"
       expireserv     "lsd"
       lamserv        "lsd"
       mgrsvr         "lsd"
       mloader        "lsd"
       mserv          "lsd"
       msqlsucfa      "lsd"
       nlsserv        "lsd"
       notifserv      "lsd"
       omfsvr         "lsd"
       postserv       "lsd"
       registry       "lsd"
       repserv        "lsd"
       rserv          "lsd"
       scheduleserv   "lsd"
       uidserv        "lsd"
       wwwsvr         "lsd"
       rulefile       "lsd"
       gmisvr         "lsd"
       cmisvr         "lsd"
       ccssvr         "lsd"
       ;
insert services host = {"lfaixv02"}
       lamserv        "lfaixv02"
       ccssvr         "lfaixv02"
;
insert services host = {"wguh"}
        lamserv         "wguh"
        ccssvr          "wguh"
;
## Define Trusted User for all hosts
#@ trustDef
insert pdmuser
       "lsd"          "cfadm"
```

```
        "lfaixv02"     "smaragd"
        "wguh"         "smaragd"
;
#@ auxEnd

## site specific include file
#include "$(@FILEPATH $(MTI_ROOT:q) config site.cfg)";

# ### CMI: Set path to CMI listener.
#set CMILISPATH "$(CMIPATH)/cmilis";
#set CMILISPATH host={"lfaixv02"} "/smaragd432/config/lsd/cmilis";

# ### CMI: Switch GMI/ CMI debug information output "ON"/ "OFF".
#set GCVMI_SERVER_DEBUG "ON";

# ### CMI: Switch between file transfer/ link.
set GCVMI_ENABLE_LINK "YES";

# ### CMI: Set displayed lines in icon/ tree view to four.
set ICONVW_ID_LINES "5";
set TREEVW_ID_LINES "5";

# ### CMI: Set path to 4D-Navigator startup program.
set CMI_CATN4D_STARTUP "$(HOME)/bin/ALL/catia_xxx";

# ### CMI: Set DMU Vault-Location + Host.
set CMI_DMU_VAULT_LOC "VaultLoc";
set CMI_DMU_HOST "edmg5";
set CMI_DMU_EXP_PATH
"/disks/edmg/local/cmiusr4/cmiMain_430/cmicus/tools/DMU_Exp";

# ### CMI: Set TimeOut for XT0 communication.
set XT0_NET_TIMEOUT "10";
#
set BROWSER_WIDTH "750";
set BROWSER_HEIGHT "510";
```